

In the Claims:

Following is a complete listing of the claims pending in the application, as amended:

31 1. (Previously Presented) An apparatus for use in electroplating a metal that is principally comprised of a metal X onto a wafer pursuant to fabricating microelectronic components on the wafer, the holder comprising:

a reactor adapted to hold an electrolyte that is used to electroplate the metal that is principally comprised of the metal X;

a wafer support adapted to support a wafer in a position within the reactor so that at least one surface of the wafer is in contact with the electrolyte during processing;

the wafer support including at least one electrode that is electrically conductive and capable of receiving and conducting electrical current supplied thereto;

said at least one electrode having a contact face that is adapted to engage a surface of the wafer to conduct electrical current thereto;

said contact face engaging the surface of the wafer at a portion of the contact face that has been pre-coated with a metal layer that is principally comprised of the metal X.

2. (Previously Presented) An apparatus as claimed in claim 1 wherein said pre-coated layer is at least 0.1 microns in thickness.

3. (Previously Presented) An apparatus as claimed in claim 1 wherein said pre-coated layer is formed by electroplating.

4. (Previously Presented) An apparatus as claimed in claim 1 wherein said pre-coated layer is formed from the identical material that is electroplated onto the wafer.

5. (Previously Presented) An apparatus for use in electroplating a metal onto a wafer pursuant to fabricating microelectronic components on the wafer, comprising:

a reactor base adapted to hold an electrolyte that is used to electroplate the metal onto the wafer;

a reactor head assembly including

a wafer support mounted to the reactor head assembly and adapted to support a wafer for contact with the electrolyte in the reactor base;

at least one electrode that is electrically conductive and capable of receiving and conducting electrical current supplied thereto;

said at least one electrode having a contact face layer forming at least part of said at least one electrode which is adapted to engage the surface of the wafer to conduct electrical current thereto;

wherein said contact face layer is made from a metal-containing contact face material that comprises the same principal metal that is to be plated onto the wafer.

6. (Previously Presented) An apparatus as claimed in claim 5 wherein said contact face layer is at least 0.1 microns in thickness.

7. (Previously Presented) An apparatus as claimed in claim 5 wherein said contact face layer is formed by electroplating said contact face material onto the contact face.

8. (Canceled)

61

9. (Previously Presented) A wafer holding assembly for use in an electroplating apparatus used to plate copper onto a wafer pursuant to forming microelectronic components thereon, comprising:

a wafer support mounted to support a wafer within the electroplating apparatus so that at least one surface of the may be brought into contact with copper-containing electrolyte;

at least one electrode that is electrically conductive and capable of receiving and conducting electrical current supplied thereto;

said at least one electrode having a contact face that is adapted to engage a surface of the wafer to conduct electrical current thereto;

wherein said contact face is pre-conditioned prior to contacting the wafer by electroplating a copper-containing layer thereon using the copper-containing electrolyte.

10. (Previously Presented) A wafer holding assembly as claimed in claim 9 wherein said copper-containing layer is at least 0.1 microns in thickness.

11. (Canceled)

12. (Canceled)

13. (Currently Amended) A method for plating a metal onto the surface of a wafer, comprising:

contacting a surface of the wafer ~~microelectronic workpiece~~ with an electrode having a contact face that is covered by a contact face layer;

submersing a surface of the wafer into a plating bath;

electroplating a metal from the plating bath onto the surface of the wafer by passing electrical current between the wafer and the electrode through the contact face plating-layer;

wherein the contact face layer is formed from the same principal metal that is plated onto the wafer.

14. (Previously Presented) A metal as claimed in claim 13 wherein said contact face layer is formed from the identical material that is plated onto the wafer.

15. (Canceled)

16. (Currently Amended) A method for plating copper onto the surface of a wafer pursuant to forming microelectronic components thereon, comprising:

contacting a surface of the ~~microelectronic workpiece~~ wafer with an electrode at a contact face forming a part of the electrode, said contact face being covered by a contact face ~~plating layer~~, said contact face ~~plating layer~~ being formed from a metal that is principally comprised of copper;

submersing a surface of the wafer into a plating bath which is used to plate a ~~workpiece~~ plating material that is principally comprised of copper onto the ~~wafer~~ microelectronic workpiece;

electroplating the ~~workpiece~~ plating material onto the surface of the wafer by passing electrical current between the wafer and the electrode through the contact face ~~plating layer~~.

17. (Currently Amended) A method as claimed in claim 16 and further including the step of electroplating the contact face ~~plating layer~~ onto the electrode prior to establishing electrical contact between the electrode and the surface of the wafer.

18-24. (Canceled)

67